What is claimed

1. Process for synchronizing an MPEG decoder for the decoding of compressed data originating from a recording medium, these data consisting of PES (Packetized Elementary Stream) audio and video data packets, the process comprising:

- a step of calculating an actual instant of presentation Tpres of the video of an image, this instant relating to a local clock LSTC,

- a step of calculating an offset STCO between this calculated instant of presentation and the PTS label corresponding to the instant of presentation desired by the coder for the video of this image, so as to define a virtual clock VSTC = STCO + LSTC,

- the presentation of the video corresponding to this image being made at the PTS dates relating to the virtual clock VSTC.

2. Process according to Claim 1, wherein the time of transit of the video through the buffer of the video decoder is imposed at a predetermined value TVBV.

3. Process according to Claim 2, wherein the determination of TVBV is dependent on the bit rate of recording of the PES data on the recording medium.

4. Process according to Claim 2, wherein the determination of TVBV is dependent on the VBV_delay.

5. Process according to Claim 1, wherein the offset is dependent on the duration of decoding of the image (TDEC), rounded to a higher number of frame periods.

6 Process according to Claim 1, wherein the calculated offset is incremented by one frame period (TVSYNC).

7. Process according to Claim 2, wherein the offset STCO is equal to:

STCO = PTS - TVBV - TVSYNC - (TimeRef x 40 ms) - TDEC - LSTCpic

where:

TVSYNC corresponds to a frame period,

TDEC corresponds to the duration of decoding of the image rounded to a higher number of frame periods,

TimeRef represents the temporal reference of the image for the reordering,

LSTCpic relates to the instant of detection of the first image.

8. Process according to Claim 1, wherein the virtual clock VSTC is re-updated on start-up, when executing "trick-modes" or on reinitialization of the video decoder.

9. Process according to Claim 1, wherein the virtual clock VSTC is re-updated with each image.

10. Process according to Claim 1, for reading data in shifted mode (time shifting), the data being recorded on the basis of a write pointer, the recorded data being read in shifted time on the basis of a read pointer, wherein a minimum gap is imposed between the read and write pointers and, when this gap is achieved, the freeze mode of the decoder is actuated.

11. Device for synchronizing an MPEG decoder to a recorded MPEG stream, the recorded data consisting of PES data packets, comprising means for calculating an offset STCO to be applied to the local clock LSTC of the decoder so as to define a virtual clock VSTC, this offset being equal to the difference between the instant of presentation Tpres of the video of an image, as calculated in the LSTC tag, and the PTS value of presentation of this image originating from the coder, the decoding of the video data being carried out when this virtual clock VSTC is equal to the corresponding PTS value.

12. Satellite decoder comprising an MPEG decoder and a synchronization device according to Claim 11.

13. Television receiver comprising an MPEG decoder and a synchronization device according to Claim 11.